PCT/ISA/237 form

1. Claim 1 is not patentable over cited reference 1 (USP 6,361,190) because lacks of novelty. Reference 1 discloses a light-emitting diode device (column 6, line 25-46, Figures 3 and 13) including a LED element 3 (i.e. LED chip), a positive and a negative leads 1 and 4 (i.e. connection pins), resin body 6 (i.e. envelop body) formed a hollow opening 8 (i.e. indented surface). Reference 1 discloses all the features in claim 1. They belong same filed and use same way to achieve same result. Therefore, claim 1 is unpatentable.

2. Claim 2 is not patentable over reference 1. See column 9, line 30-35, Figures 3 and 13, the resin body 6 is a cylindrical body and the top thereof is indented as an inward concave. Therefore, claim 2 lacks novelty.

3. Claims 3 and 4 are patentable because lack of inventive step. Although reference 1 does not disclose the indented top is a conic or a polygonal concave, a person in the skilled art can change the inward concave to different types. Therefore, claims 3 and 4 are unpatentable.

4. Claims 5 and 6 are patentable over reference 1 because lack of inventive step. See column 7, line 18-24, Figure 4, a half angle between 0 to 75° is disclosed. That is, the angle is between 0 to 150° which covers major feature of claim 5 and all feature of claim 6. Therefore, claims 5 and 6 are obvious.

5. Claim 7 is patentable over reference 1 because lack of inventive step. See column 9, line 30-35, Figures 3 and 13, the resin body 6 is a cylindrical body and the top thereof is indented as an inward concave. Although reference 1 does not disclose the indented top is a semi-spherical recess, a person in the skilled art can change the indented top to different shapes. Therefore, claim7 are unpatentable.

6. Claim 8 is patentable over reference 1 in view of cited reference 2 (CN2346075) because lack of inventive step. Reference 2 discloses a light-emitting diode device (page 3, line 19-25, claim 3, Figures 2-5) including a packaged resin 5 with a color same as light generated by the light-emitting diode chip 1. Therefore, claim 8 is unpatentable.